

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT US 113 AND RELOCATED MD 589 IN WORCESTER COUNTY. US 113 IS ASSUMED TO RUN IN AN NORTH - SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING FOR SOUTHBOUND TRAFFIC. AN OVERLAP FOR WESTBOUND RIGHT-TURNING TRAFFIC AND US 113 APPROACHES RUNNING CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE '6' BASE-MOUNTED CABINET.

GENERAL

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

GENERAL NOTES

- LOOP DETECTORS AND CONDUIT SHOWN ARE TO BE INSTALLED PRIOR TO INSTALLATION OF PAVEMENT MARKINGS.
- CONTRACTOR SHALL VERIFY LOCATION OF NEW GEOMETRICS PRIOR TO INSTALLATION OF SIGNAL EQUIPMENT.
- WITHIN 18 IN. OF UNDERGROUND UTILITY LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- ALL STOP LINE MARKINGS ARE TO BE INSTALLED ACCORDING TO SHA STANDARDS.
- OTHER PAVEMENT MARKINGS SHOWN ARE TO BE INSTALLED ACCORDING TO THE PAVEMENT MARKING PLAN, SHA STANDARDS AND WILL BE PERFORMED BY OTHERS.

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY THE SHA:

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	2 EACH	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER
900000	1 EACH	CONTROLLER ASC IIW/ TELEMETRY
900000	1 EACH	CABINET INTERSECTION MONITOR, SIZE 6
973023	41 S.F.	SHEET ALUMINUM SIGNS: - 1 EACH R10-12 SIGN (36IN X 42IN) MAST ARM MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, US 113 RIGHT ARROW" (24IN. X 51IN.) POLE MOUNTED - 1 EACH ASSOCIATED SHIELD ASSEMBLY "SOUTH, US 113 LEFT ARROW" (36IN X 75IN) POLE MOUNT - 1 EACH R3-5L SIGN (30"X36") MAST ARM MOUNT

The contact persons for District #1 are as follows:

Mr. Donnie Drewer
District Engineer
Phone: 410-677-4006

Mr. Gene Coffiel
Assistant District Engineer - Traffic
Phone: 410-677-4040

Mr. Bruce Poole
Utilities Engineer
Phone: 410-677-4082

Mr. James Wright
Assistant District Engineer - Maintenance
Phone: 410-543-6715

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

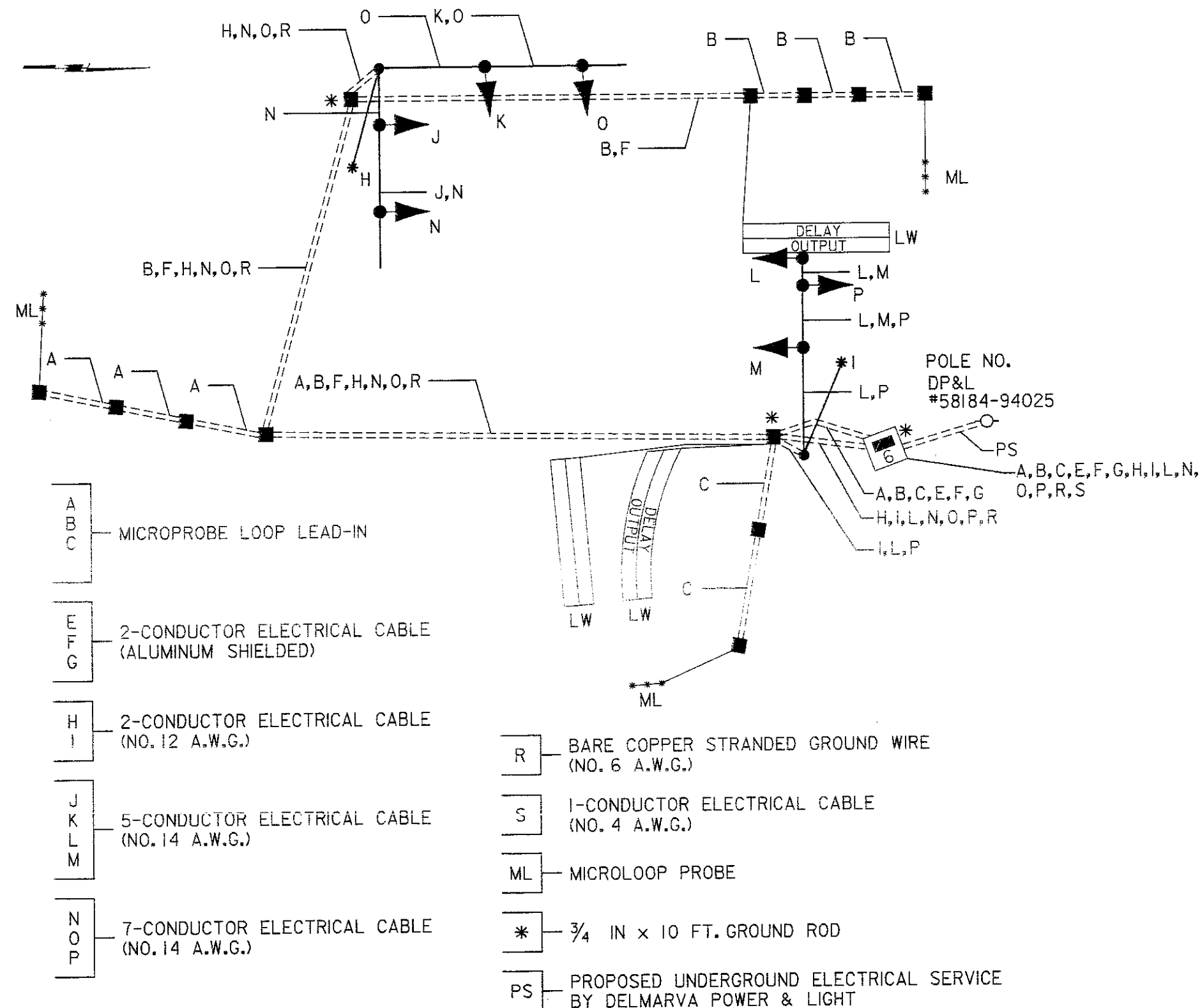
The Power Company Representative is:
Connective Power
Mr. Chris Smith
P.O. Box 1739
Salisbury, Maryland 21802
Phone: 800-375-7117

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR:

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
203030	2 C.Y.	TEST PIT EXCAVATION
585624	87 L.F.	INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PERMANENT PAVEMENT MARKING HEAT APPLIED
800000	24 EACH	FURNISH & INSTALL 12 IN. PLASTIC VEHICULAR TRAFFIC SIGNAL HEAD (POLYCARBONATE)
800000	3 EACH	FURNISH & INSTALL 8 IN. PLASTIC VEHICULAR TRAFFIC SIGNAL HEAD SECTION (POLYCARBONATE)
801004	10 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL POLE FOUNDATION
802501	210 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPED GROUND WIRE
805118	75 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
800000	165 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
800000	1300 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
800000	60 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805160	30 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC ELECTRICAL CONDUIT FOR DETECTOR SLEEVE
831010	2 EACH	FURNISH AND INSTALL 250 WATT HPS LAMP AND LUMINAIRE WITH PHOTOCELL
838003	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120V/240V, 1 PHASE, 3 WIRE SYSTEM)
811011	12 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	22 S.F.	INSTALL GROUND MOUNTED SIGN
813015	19 S.F.	INSTALL OVERHEAD SIGN
818021	1 EACH	FURNISH AND INSTALL 27' STEEL POLE WITH TWIN 50 FT. MAST ARMS
818036	1 EACH	FURNISH AND INSTALL 27' STEEL POLE WITH A SINGLE 50 FT. MAST ARM
837001	3 EACH	FURNISH AND INSTALL GROUND ROD-3/4 IN. DIAMETER X 10 FT. LENGTH
861104	365 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	150 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	640 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
861116	360 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
862101	1425 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	400 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
866104	2 EACH	FURNISH AND INSTALL 20-FOOT LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE
800000	3 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET AND 1000 FOOT LEAD-IN
871202	1 EACH	INSTALL CONTROLLER AND CABINET-BASE MOUNT
800000	2 EACH	REMOVE AND SALVAGE EXISTING TRAFFIC SIGNAL EQUIPMENT
800000	2 EACH	DELIVERY OF SALVAGED TRAFFIC SIGNAL EQUIPMENT
800000	1 EACH	CUT, CLEAN AND CAP MAST ARM
810010	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 A.W.G., THHN/THWN)

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	
PHASE 1 + 6	R	R			G	R		
PHASE 1 + 6 CHANGE	R	R			G	R		
PHASE 2 + 6	G	G			G	R	R	
PHASE 2 + 6 CHANGE	Y	Y			Y	R	R	
PHASE 8	R	R	R	R	R	G	G	
PHASE 8 CHANGE	R	R	R	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

SG-2



STV Incorporated

engineers / architects / planners / scientists / construction managers
21 Governor's Court Baltimore, MD 21244-2722 (410) 944-9112

REVISIONS	APPROVALS
	TEAM LEADER, TRAFFIC ENGINEERING DESIGN DIVISION
	ASST. CHIEF TRAFFIC ENGINEERING DESIGN DIVISION
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNALIZATION PLAN
US 113
MD 589 RELOCATED

DRAWN BY: B.A.B.	F.A.P. NO. 3999	SEE TITLE SHEET	TS NO. 3999	SHEET NO.
CHECKED BY: M.T.S.	S.H.A. NO. W07385170	COUNTY: WORCESTER	T.I.M.S. NO. D 556	272 OF 335
SCALE: 1" = 20'	LOG MILE:			
DATE: MAY 5, 2000				